AMENDMENTS TO THE SPECIFICATION:

Please replace Table 2 beginning on page 35, line 1 and ending on page 35, line 4, with the following amended Table 2:

TABLE 2

Marker	Primer (Forward)	Primer (Reverse)
GTC_HBM_Marker_5 (SEQ ID NOS: 74-75)	TTTTGGGTACACAATTCAGTCG	AAAACTGTGGGTGCTTCTGG
GTC_HBM_Marker_7 (SEQ ID NOS. 76-77)	GTGATTGAGCCAATCCTGAGA	TGAGCCAAATAAACCCCTTCT

Please replace the heading for Table 3 beginning on page 38, with the following amended heading:

TABLE 3: HBM STS Table
(SEQ ID NOS.: 78-637, respectively, in order)

Please replace the paragraph beginning on page 52, lines 3-13, with the following amended paragraph:

The purified DNA fragments were then blunt-ended using T4 DNA polymerase. The blunt-ended DNA was then ligated to unique BstXI-linker adapters (SEQ ID NOS.: 638 and 639) (5'- GTCTTCACCACGGGG and 5' GTGGTGAAGAC in 100-1000 fold molar excess). These linkers were complimentary to the BstXI-cut pMPX vectors (constructed by the inventors), while the overhang was not self-complimentary. Therefore, the linkers would not

concatemerize nor would the cut-vector religate itself easily. The linker-adapted inserts were separated from the unincorporated linkers on a 1% agarose gel and purified using GeneClean (BIO 101, Inc.). The linker-adapted insert was then ligated to a modified pBlueScript vector to construct a "shotgun" subclone library. The vector contained an out-of-frame lacZ gene at the cloning site which became in-frame in the event that an adapter-dimer is cloned, allowing these to be avoided by their blue-color.

Please replace the paragraph beginning on page 74, line 13 to page 75 line 3, with the following amended paragraph:

The amplicon containing the HBM1 polymorphism was PCR amplified using primers specific for the exon of interest. The appropriate population of individuals was PCR amplified in 96 well microtiter plates as follows. PCR reactions (20 μl) containing 1X Promega PCR buffer (Cat. # M1883 containing 1.5 mM $MgCl_2$), 100mM dNTP, 200 nM PCR primers (SEQ ID NOS.: 640 and 641)(1863F: CCAAGTTCTGAGAAGTCC and 1864R: AATACCTGAAACCAT ACCTG), 1 U Amplitaq, and 20 ng of genomic DNA were prepared and amplified under the following PCR conditions: 94°C, 1 minute, (94°C, 30 sec.; 58°C, 30 sec.; 72°C, 1 min.) X35 cycles), 72°C, 5', 4°C, hold. Loading dye was then added and 10 μl of the products was electrophoresed on 1.5% agarose gels containing 1 μg/ml ethidium bromide at 100-150 V for 5-10 minutes. Gels were treated 20 minutes in denaturing solution (1.5 M NaCl, 0.5 N NaOH), and rinsed briefly with water. Gels were then neutralized in 1 M Tris-HCl, pH 7.5, 1.5 M NaCl, for 20 minutes and rinsed with water. Gels were soaked in 10 X SSC for 20 minutes and blotted onto nylon transfer membrane (Hybond

N+- Amersham) in 10X SSC overnight. Filters were the rinsed in 6X SSC for 10 minutes and UV crosslinked.

SUBSTITUTE SEQUENCE LISTING:

Please replace the sequence listing submitted on February 03, 2003 with the attached substitute sequence listing.